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JAPANESE PATENT OFFICE

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(71) Applicant: **YAMAHA MOTOR CO LTD**

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(54) **INTAKE DEVICE FOR ENGINE**

gas characteristics.

(57) Abstract:

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**PROBLEM TO BE SOLVED:** To provide an engine intake device capable of stably improving fuel economy and exhaust gas characteristics for a long time without increasing costs by stabilizing the combustion of a air-fuel mixture at the time of a low load.

**SOLUTION:** In the intake device of an engine 1 having a sliding throttle valve 26 in the midway of an intake passage 32, the downstream intake passage 32 of the throttle valve 26 is partitioned into upper and lower parts by a partition wall 33 in the sliding direction of the throttle valve 26, these parts being set as high load and low load passages 32-1 and 32-2, and at the time of a low load when the opening degree of the throttle valve 26 is small, intake air is guided from the low load passage 32-2 along the upper wall 7a of the intake port 7 of a cylinder head 6 into a cylinder 3. Thus, tumbling is generated by the air-fuel mixture in the cylinder 3, the air-fuel mixture in the cylinder 3 is sufficiently stirred by this tumbling to stabilize the combustion thereof, and the leaning of the air-fuel mixture is realized to improve fuel economy and exhaust

